

MINUTES

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE MEETING OF March 18, 1999

The first meeting of the CTCDC in 1999 was held in the Marin County Council Chambers, in San Rafael, on March 18, 1999.

Acting Chairman Wayne Tanda opened the meeting at 9:05 a.m. with the introduction of members and guests. The Chairman thanked the County and especially Mr. Farhad Mansourian for his gracious hospitality on behalf of the Committee.

The following members, alternates, and guests were in attendance:

ATTENDEES	ORGANIZATION	TELEPHONE
Members (Voting)		
Wayne Tanda Acting Chairman	League of California Cities, City of San Jose	(408) 277-4945
Bruce Carter	California State Association of Counties, Shasta County	(530) 225-5661
Dick Folkers	League of California Cities, City of Palm Desert	(760) 346-0611
Dwight Ku	California State Automobile Association, Sacramento	(916) 443-2577
Jim Larsen	California State Association of Counties, Tulare County	(209) 773-6291
Jerry Meis	California Department of Transportation, Sacramento	(916) 654-4551
Capt. Stan Perez	California Highway Patrol, Sacramento	(916) 657-7222
Jack Kletzman Secretary	California Department of Transportation, Sacramento	(916) 654-4715

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ATTENDEES	ORGANIZATION	TELEPHONE
Jose Ampon	City of Salinas	(831) 758-7439
Chris Bailey	Contra Costa County	(925) 313-2339
Rick Blunden	Caltrans, Sacramento	(916) 653-0036
Tim Bustos	City of Davis	(530) 757-5686
Shirley Carey	CSAA	(415) 565-2895
Sandy Champion	CHP	(916) 657-7222
Augustine Chou	City of San Bruno	(650) 877-8865
Mark Cortina	All Sign Products	(954) 781-9101
John Fisher	City of Los Angeles	(213) 580-1193
James Galam	Napa County	(707) 944-0191
Al Girardot	Wilcox Sales	(909) 624-6674
Lance Heide	Napa County	(707) 944-0196
Patrick Hsu	Caltrans, San Bernardino	(909) 383-4226
Steve Kersevan	Contra Costa County	(925) 313-2254
George Kochanowski	All Sign Products	(954) 781-9101
Chris Lang	Marin Bicycle Coalition	(415) 457-8687
Lujuanna Lopez	CHP	(916) 657-7222
Perry Lowden	Consultant	(530) 673-2214
Doug Maas	Sacramento County	(916) 875-5545
Rupor Mallouapu	Sacramento County	(916) 875-5327
Andrew Poster	Daly City	(650) 991-8231
John Reynolds	Caltrans, Fresno	(559) 488-4194
Bill Streater	Flight Light	(916) 364-2800
Bob Snyder	Cyclist	(415) 457-2784
Bill Thurston	Sierra Highway Safety	(925) 943-7372
Ed von Borstel	City of Modesto	(209) 577-5266
Jim Wagner	Marin County	(415) 499-6036
Michael Wiebe	Caltrans, Fresno	(599) 688-9134
Robert Zeigler	Marin County	(415) 499-6336

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MOTION: By Bruce Carter, second by Dick Folkers, to adopt the minutes of the San Diego meeting, held on October 22, 1998. Motion carried 7-0.

MEMBERSHIP

Mr. Bruce Carter was given a plaque and an ovation in honor of his many years of service on the Committee and as its' Chairman. Capt. Stan Perez has just been appointed the representative for the California Highway Patrol. The Chair recognized Lujuanna Lopez for her years of service to the California Highway Patrol representative. She is transferring to a new position. The Chair also recognized Bob Zeigler for his many years of service to Marin County. He is retiring

90-7 BICYCLE SIGNAL HEADS

Wayne Tanda explained that members of the Committee supported bicycle signal heads as a device, but could not recommend to Caltrans to adopt the device, because legislation has to be enacted to allow its' use. In addition, warrants have to be adopted to prescribe usage. The conclusion of the Committee was to allow the experiment to continue until the legislation is passed and the warrants are developed. Tanda said that legislation was in progress (AB134) and Caltrans is actively in the process of developing warrants. Final action is expected upon their completion.

Tim Bustos recalled that the legislation was almost approved last year and then vetoed for an unrelated reason. The current bill is sponsored by Senator Thomson and is in committee. Bustos said the bill is on track and looking favorable. There is a small contingent that is concerned about the potential misuse of bicycle signal heads to restrict cyclists access to roads. Bustos does not feel this is a valid issue. His research indicates the proposal is overwhelmingly supported by cyclists and motorists. The device has definitely reduced accidents in Davis. Chris Lang said the Netherlands has a completely separate Class I system for bicycles with bicycle signal heads. Wayne Tanda noted there was a time limit of two years from March 1998 for continuation of the experiment.

ACTION: Item continued.

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94-10 PEDESTRIAN SIGNAL HEADS

Doug Maas distributed a final report and noted that it did not differ from the draft. Maas recalled that they had come before the Committee in 1994 to get experimentation approval for a device to clarify pedestrian confusion about flashing don't walk or red hand indications. The device was to indicate how much time a pedestrian had to cross the street in a self explanatory manner. The initial study was done with a Canadian head. There was difficulty in finding a head which used MUTCD approved symbols and colors. The Canadian head had two sections with a slightly different style symbol. Later the Canadian company fabricated a module that uses existing pedestrian heads. The focus of the first survey was pedestrian comprehension and benefit. The County then requested to be allowed to install these devices at five additional locations to test a variety of circumstances. Large intersections with wide legs, major streets with minor crossings, school crossings, and County facilities. Maas admitted that, in retrospect, they may have spread themselves too thin and were unable to address everything they wanted.

Doug Maas was contacted by the University of North Carolina Highway Research Center, who asked if they could do a study at the test intersections. They requested six hours of video tape at each intersection showing "before" and "after" conditions. They would then analyze pedestrian behavior. That extended the County's available resources beyond what was anticipated and made the schedule dependant on the University's execution. Mass has not yet received a copy or the University's report. It will be a more intensive study of pedestrian behavior. Some of the issues are whether the count down device encourages pedestrians to leave the crosswalk when the symbol sign says they should not, and whether the number of pedestrians left in the crosswalk decreases. Maas said they could not get the "before" and "after" speed studies requested by the Committee.

Doug Maas noted that other cities such as the City of Hampton, VA and the City of Monterey were also experimenting with this device under the auspices of the FHWA. These studies examine driver behavior, including whether motorists tend to speed up in response to time shown on the device. He then showed a video demonstrating the count down device for those that were unable to attend the field demonstration.

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94-10 PEDESTRIAN SIGNAL HEADS (continued.)

Doug Maas said the County would probably not gather more data. He concluded that the device gives pedestrians had a better understanding of the flashing DON'T WALK indication. The number of pedestrians entering the intersection after the DON'T WALK indication began flashing increased, while the number of pedestrians remaining in the crosswalk, at the end of the yellow clearance, decreased. Experimental results suggest the timer should indicate 0 at the beginning, rather than the end, of the yellow clearance. This results in fewer pedestrians remaining in the crosswalk. One problem is that youngsters, knowing they can cross with less time, may leave late and surprise the motorist making a right turn. Mass doesn't view this issue as a substantial problem, because it usually occurs near schools, where such behavior happens with or without the count down device.

Doug Maas told the Committee that the City of Boulder did a study with similar results. The number of pedestrians that understood flashing DON'T WALK was 70-75%, that understood the count down indication and liked it was 90%. Maas told the Committee that the original cost was approximately \$750, but that subsequent quotes were around \$450. He felt the price would continue to decline. Maas believes that the intent of the other cities studies is to have the device included in the MUTCD. The time schedule is uncertain, but probably lengthy. Maas has seen only the digital type count down device used experimentally. There is no indication that pedestrians use the device as a count down for stepping off the curb, rather than to clear the crosswalk. No information is available on whether pedestrians concentrate on the count down device and lose focus on nearby cars. Even though the cameras were made obscure, pedestrians were trying to evade the camera. The County was unaware of a similar FHWA study but would be willing to share the data.

Stan Perez expressed concern that the elapsed time before the pedestrian indication begins to flash may be too short. The Vehicle Code prohibits pedestrians from entering the crosswalk when the indication begins to flash. Bruce Carter responded that pedestrians see a green light and walk across the street, even if the DON'T WALK indication is lit. Doug Maas responded that the count down indication is the same as the flashing DON'T WALK or hand symbol. All the County did was add numbers.

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94-10 PEDESTRIAN SIGNAL HEADS (continued.)

Doug Maas noted that the count down device timing is set at normal clearance time. Adjustments made to the controller are automatically read into the count down device. If the red hand goes solid, any remaining time the timer is blanked out. This is a fail-safe method of preventing the timer from recycling. There have been no pedestrian accidents at the test sites. The County has so few reported pedestrian accidents, that this criteria was dropped from the study.

John Fisher expressed concerned that the additional information may improve the number of pedestrians left stranded, but will increase the number entering the crosswalk illegally. The device may focus the attention of pedestrians on the count down numbers rather than the meaning of a flashing DON'T WALK. Fisher advocates improved identification of the meaning of a flashing DON'T WALK. Bruce Carter noted that much effort has been made to explain the meaning of pedestrian symbols to the public, but that effort appears unsuccessful. Carter feels the count down device is a good idea because it gives pedestrians more information.

Wayne Tanda was surprised that, according to the final report, 80% under the age of 13, 70% of ages 13-60 years, and 66% over 60 understand the flashing DON'T WALK. Tanda wants to see more data to explain where the pedestrians are stranded in the crosswalk and what are they doing. He would also like to know what is happening with right turns and wants recommendations for operations. Tanda noted that at some locations the count down went to zero on red and at others went to zero on amber, allowing more time for the pedestrians. This should be standardized. Tanda wanted more information about drivers speed, and on their propensity to run red lights.

Doug Maas responded that the City of Monterey's report had no speed studies, but they did measure distances and observed drivers reactions for accelerating vehicles. Maas feels this criteria depends on a variety of other conditions. There is always a problem with pedestrians entering the intersection at the wrong time. The City of Monterey's report recommended having adequate clearance time for the yellow and all red signal phases. They also recommended using a Portland orange rather than a red LED for the timer indication. While the visibility remains effective for pedestrians, it is less visible to the driver and reduces the drivers ability to misuse the signal.

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94-10 PEDESTRIAN SIGNAL HEADS (continued.)

Wayne Tanda wants to review other data in the pedestrian and motorist area, the traffic operations with respect to when the timer should be zero, and the color scheme, before taking action on recommending the device. Tanda observed that the Committee sometimes moves in advance and in other cases defers to FHWA on national standards. For an official traffic control device to be legal in California, Caltrans has to approve the standard. Bruce Carter noted that there are several other States involved in testing this type of device. He feel the issue should be resolved at the Federal level to maintain consistency from State to State.

The Committee then considered what to do with the existing experiment. Doug Maas said the County would like to continue to experiment. Wayne Tanda wants to bring some closure and if the results warrant it, forward the information to FHWA. Gerry Meis supported allowing the County to continue operation of the signal head, continue to collect data, and allow FHWA to make a decision. Maas told the Committee that there is a fair amount of interest in the device. Meis noted that in the absence of a Federal Standard, Caltrans can approve such a device, but he would like some legal counsel.

Wayne Tanda requested that additional information either from the County, or from other sources such as the City of Monterey, North Carolina, or the City of Boulder be brought to the Committee so that a more informed decision can be made. Tanda said he could not support the device at this time because the questions that have been asked over the past meetings had not been addressed. Jim Larsen requested that the FHWA be contacted to ascertain the status of their progress.

ACTION: Item continued.

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98-2 FLASHING YELLOW ARROW SIGNAL

Dick Folkers asked for a continuance since he had not heard from the experimenter. Wayne Tanda noted that since this has been the fifth time that this item has been on the agenda, there should either be a proposed experiment plan or consideration should be given to cancel the item. Folkers suggested that the experimenter be notified by the Executive Secretary. The Committee concurred.

ACTION: Item continued.

98-4 YELLOW PHASE TIME

Jack Kletzman recalled that Caltrans had changed the yellow interval table from English to Metric units and brought the issue before the Committee, with the understanding that there had been no substantive change. John Fisher had, at the last meeting, pointed out that the yellow interval values were different from what he had in an older edition of the Traffic Manual. Kletzman said they went back and found that Fisher was correct. Although at the time of conversion there was no change, there had been a change prior to the metric conversion. This change had not been brought before the Committee. The change occurred in 1994 as a result of a Caltrans study. Kletzman said John Wallo had asked, at the last meeting, if there were a change, to let the Committee know the basis of the change. Both the title sheet of the study and the letter, which authorized the change, were presented in the agenda.

Jim Larsen said that this satisfied John Wallo's concern. Fisher said he was satisfied with the information. Bruce Carter noted that some State in the East reverted back to English units. Gerry Meis said that Caltrans has not considered reverting back to English units, but some local agencies have recently requested that Caltrans documents be published in both Metric and English units.

MOTION: By Jim Larsen, second by Gerry Meis, to recommend adoption of the Suggested Yellow Phase Signal Intervals and the Suggested Detector Setback Table.

Motion carried 7-0.

ACTION: Item completed.

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99-1 GAPS FOR PEDESTRIAN CROSSINGS

Jack Kletzman told the Committee that Ray Mellen had requested this item to be tabled.

ACTION: Item continued.

99-2 SHARE THE ROAD SIGN

Chris Lang told the Committee that several States were using a small green on white bicycle symbol sign which had SHARE THE ROAD beneath the bicycle. Lang observed that the proposal recommended by CBAC was a W79 bicycle symbol sign with a SHARE THE ROAD plate beneath. He feels the proposed sign is too big and no one pays attention to the sign. Lang advocated an advisory warning sign where roads have insufficient width to add a lane or provide shoulders. He envisions the sign being used on a shared route where a Class II bike lane cannot be added. He asked the Committee to consider the single sign in order to reduce the number of signs.

Chris Lang introduced a European safety sign. It was triangular in shape with a bicycle symbol and a red border. It is used to alert non-English speaking pedestrians to the fact that they are crossing a bicycle path. Lang said the Golden Gate Bridge Authority doesn't need Caltrans approval to use the sign because they are a Federal Agency. He sees this sign being used where there is heavy intermixed pedestrian and bicycle traffic such as in Golden Gate Park and the Golden Gate Bridge in San Francisco. He then requested the Committee recommend approval for both the green on white symbol sign with SHARE THE ROAD and the European safety sign. Although Lang preferred the smaller sign, he also supports the W79 bicycle symbol sign with a SHARE THE ROAD plate beneath.

Dick Folkers pointed out that Federal Agencies were restricted to using the MUTCD and the European safety sign is not included in that manual. Gerry Meis said that the signs presented in the agenda were adopted by the MUTCD and Caltrans would prefer to comply with the national standard. The MUTCD version can also be used with farm equipment and other appropriate symbol signs.

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99-2 SHARE THE ROAD SIGN (continued.)

Rick Blunden said CBAC got Caltrans to change the policy on the W79. The policy was to warn motorists of a bicycle path, lane, or route crossing the roadway. Usage now includes warning motorists of bicycles, where the road is too narrow to permit a separate bicycle facility. CBAC, at the request of a number of cities and counties, has reviewed and recommended the W79 and the MUTCD approved SHARE THE ROAD plate for use where motorists and bicyclists share the traffic lane. Blunden knows of several versions of SHARE THE ROAD that are now in use on local roadways. CBAC did not recommend signs that were not approved by MUTCD.

Dick Folkers felt the European safety sign was in conflict with our YIELD and STOP signs. Folkers says Palm Desert uses a GOLF CARTS MAY USE SIDEWALK sign. The sign is used where there are 10' to 12' sidewalks with pedestrian and golf cart traffic. He supports the MUTCD SHARE THE ROAD plate.

Jim Larsen expressed concern that a green and white sign used where there is no room for a separate facility might be in conflict with signs indicating a separate facility. Larsen said he too supports the national plate. In urban areas, where less clutter is being sought, there is the option of using a smaller sized sign while retaining the standard warning color and shape.

Rick Blunden reiterated that CBAC has looked at a number of nonstandard signs and the only configurations supported by CBAC is the MUTCD adopted plate. Stan Perez suggested to Chris Lang that, since CTCDC was only going to act on the agendized MUTCD adopted plate, he submit his signs to CBAC for their opinion on whether CTCDC should take further action.

Bruce Carter observed that the MUTCD plate provides a lot of flexibility in that it can be used with a variety of signs whereas the signs proposed by Chris Lang can only be used for bicycles. Carter was hoping Chris Lang and his group would support the MUTCD plate and not go forward with a separate sign. Both signs serve the same purpose. Dick Folkers thinks the green and white sign has some merit and can be used with golf cart signs. He supports referring Chris Lang's proposal to CBAC.

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99-2 SHARE THE ROAD SIGN (continued.)

MOTION: By Stan Perez, second by Dick Folkers, to recommend adoption of the MUTCD approved SHARE THE ROAD plate (Federal designation W11-5a) and that other signs proposed by Chris Lang be forwarded to CBAC. Motion carried 7-0.

ACTION: Item completed.

99-3 AUDIBLE PEDESTRIAN SIGNAL POLICY

Jack Kletzman told the Committee that the California Council of the Blind had passed two resolutions. One was for Caltrans to require that at any intersection where an audible pedestrian signal is installed, a signal be placed on each corner where a pedestrian crossing can be made, and for the FHWA to adopt a similar guideline on the national level. The second resolution supported existing State guidelines, urge local jurisdictions to install audible signals at all new or upgraded facilities and to prioritize placing signals at existing intersections, and not to change existing State guidelines without providing equivalent safety and access. Kletzman handed out copies of the Traffic Manual audible pedestrian signal guidelines.

Dick Folkers said he had received a document from Brian Gallager of the City of Los Angeles expressing concern about signalization for impaired pedestrians at intersections. Folkers caution the Committee to research the issues and move slowly. He suggested the formation of a sub-committee. Stan Perez noted that the Traffic Manual allows audible pedestrian signal as a “may” condition whereas the resolution calls for a mandatory condition. Perez suggested that Caltrans have their legal counsel review the guidelines with respect to ADA requirements.

Al Girardot recalled that in 1992 Caltrans he worked with the Committee to establish guidelines for audible pedestrian signals. He finds that local jurisdictions are changing the authorized sound emission. Communities are speeding and slowing the sound, making multiples of the sounds, using voice sounds, and requiring pedestrian push buttons be held in for 5 seconds to activate the sound. Girardot believes this is the reason for the California Council of the Blind’s resolutions. There are too many non-standard devices coming on to the market.

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99-3 AUDIBLE PEDESTRIAN SIGNAL POLICY (continued.)

John Fisher told the Committee there are new devices coming to market, some from Europe, which may add new dimensions to what can be done for the visually impaired. Even if the issue of whether a device were required at every intersection were resolved, the issue of which device was appropriate for that intersection would still need to be determined. An audible pedestrian device is not the only solution. In a residential area, with a skewed intersection, the sound would cause noise pollution and the visually impaired would still not know how to cross the street on a diagonal. There are other circumstances for which an audible signal doesn't work well. That is why new devices, such as a viable tactile device that silently tells you, with a vibrating field, when to cross and in which direction, are coming to market.

John Fisher understands that both ITE and the National Committee are taking up the issue of audible pedestrian devices and suggested that the Committee might want to wait for reports from these national organizations. Bruce Carter concurred, recalling that even when the Committee settled on the coo-coo, tweet-tweet sound, it was a very complicated issue. That is the reason the Committee ended up with a "may" condition.

Jack Kletzman told the Committee that the California Council of the Blind was notified of the issue being on the agenda but could not attend because of transportation difficulties. Gerry Meis wants to hear from the California Council of the Blind, because some clarification of the resolutions is needed. Wayne Tanda concurred because he feels the resolutions speak to several issues and the Committee does not normally address some of those issues.

Dick Folkers sensed that the best approach was not to jump into new standards. The consensus of the Committee was that some clarification of the resolution is needed. Stan Perez pointed out that the guidelines are permissive, so that non-uniform variations can be used. His interpretation is, that the authors of the resolution seek to require a standardized type of signal, that is consistent with ADA requirements. Perez is not sure the Committee is the proper forum and he reiterated his suggestion to seek legal counsel on ADA issues. The consensus of the Committee was to form a sub-committee consisting of Dick Folkers (Chairman), Ray Mellen, and Gerry Meis to clarify the issues.

ACTION: Item continued.

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99-4 STOP SIGNS, ALL PLASTIC POLYCARBONATE

Dick Folkers said this device is an enhanced STOP sign with new technology which may have some advantages. George Kochanowski said that plastic STOP signs have formerly not been used because of fading, loss of retro-reflectivity, an inability to be cleaned, and a lack of strength.

George Kochanowski found that automobile tail lights and bicycle reflectors use little mettle cubed pins, such that the angularity in the cone of retro-reflectivity could be engineered. The pins are built into blocks to provide retro-reflectivity. Unlike normal sheeting, the edge around the STOP sign has very narrow angularity, so that it is visible at a great distance. The legend has great angularity at the edge of the letters, but not at the center, which allows the legend to be read clearly. He told the Committee that the red area of the sign reflects light, nine times better than the premier sheeting now in the marketplace.

George Kochanowski addressed graffiti problems by demonstrating that he could remove permanent marker ink off the sign with a nail polish remover pad. He said the sign material is made by duPont and is put on top of polycarbonate. Polycarbonate gives the sign strength and Tedlar gives it uv protection and resistance to chemical reaction. Kochanowski exhibited a STOP sign which had been shot by an twelve gage shotgun, from a range of 18 yards, and yet provides the same level of performance as an undamaged sign. The technology of flat faced sheeting on aluminum forces creates speculative glare on low mounted signs. The sign is not flat, which prevents whiting out the sign and its message. Kochanowski designed a 4° radius in the new signs to avoid speculative glare.

George Kochanowski described the problem that exists when signs backlit by the sun and appear black and unreadable. He showed pictures to indicate this does not happen to the plastic STOP sign although the post is visible. By comparison the 4 way stop plate beneath the STOP sign is completely black. Rust running down the face of the sign has been eliminated by placing the mounting nut on the inside. Cuts on hands from handling aluminum which has not been sufficient de-burred are eliminated because of the smooth rounded edges of plastic.

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99-4 STOP SIGNS, ALL PLASTIC POLYCARBONATE (continued.)

Dick Folkers requested copies of the FHWA's letter confirming compliance with the MUTCD. George Kochanowski said the signs had not been tested by Caltrans, but he had three year outdoor data from Florida and Arizona. The product has been approved by Alabama, Pennsylvania, Massachusetts and is pending in twenty one other States. Kochanowski said Polycarbonate is commonly used in domes of police equipment, and for shatterproof car headlights. Tedlar has been approved for use on the side of fuel pumps to prevent discoloration from gasoline spillage. He said that automobile taillights can last fifteen years without diminished red coloration. He produced two test plaques submitted for ASTM testing one of which was tested for three cycles. The two plaques look the same. The material is guaranteed for ten years against the color red changing or loss of retro-reflectivity. The difference is the color is not a surface coat, it goes all the way through. The sign costs \$60 to \$66 which is less than a prismatic sheeted sign. These signs are recyclable except for mounting nut and his company will provide a rebate for old signs. He said there have been knock downs and the sign did not penetrate the floorboard or the glass of the automobile.

Wayne Tanda thought that this device is an official traffic control device. Gerry Meis said that this device is a new product. If the product is to be purchased by Caltrans it must be submitted as a new product. Mark Cortina said they had been in touch with Caltrans' New Product Coordinator and viewed this as another path to approval. Tanda suggested the Committee confirm this device as an official traffic control device. Cortina suggested the Committee recommend testing. Meis responded that he was opposed to the Committee recommending products to be tested by Caltrans.

Gerry Meis said there is one coordinator, handling new products for all of Caltrans, but there are several independent subcommittees. It depends on the propose of the product as to which subcommittee does the evaluation. Meis is in charge of the Traffic Devices New Products Committee. The first condition is whether Caltrans has a need for the product. If there is no need, Caltrans is unlikely to test the product. If Caltrans has a need for the product, if the product passes an evaluation, and there is sufficient justification, the product is then put on the approved products list.

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99-4 STOP SIGNS, ALL PLASTIC POLYCARBONATE (continued.)

Gerry Meis said the difference between a new device and a new product is sometimes not a clear division. Mark Cortina asked for a motion to declare that this product is an official traffic control device. Meis said that it is not necessary to get a product on Caltrans approved product list for the product to be used in California. Cortina responded that local jurisdictions are telling him that they can't make a move unless the product is on the Caltrans list. Meis acknowledge that the local jurisdiction may adopt such a policy, but the basic purpose of the approved products list is to advise Caltrans field personnel what products they can purchase.

Gerry Meis said there was no doubt in his mind that, if the STOP sign were the correct dimensions, it would be an official traffic control device. The problem is whether this is a product anyone wishes to purchase. Dick Folkers thought the issue is whether this product is compatible with other manufactured STOP signs. He feels that local jurisdictions want some assurance that use of the sign will not result in litigation after an accident. Tanda thought evaluation by Caltrans new products committee would answer the question. Folkers responded that the City of La Quinta would like to use these signs and if it is the same as any other STOP signs and meets the specifications they should be allowed to do so. It has nothing to do with whether Caltrans has a need for this product

Stan Perez wondered if the Committee was endorsing a product or deciding if the sign meets existing standards. He asked if the Committee had enough information to determine the latter. Mark Cortina said the memorandum from the FHWA says the product is compliant to the MUTCD for a STOP sign (Federal designation R1-1). Perez felt, in that case, there was no action for the Committee.

Gerry Meis said that any local jurisdiction that wanted to purchase the device was certainly welcome to do so. He concurred that no action of the Committee was needed. Jim Larsen acknowledged that the Committee has a letter from the FHWA which says the product meets MUTCD requirements, but he is uncomfortable stating that the product meets State standards. That is not known until the State tests it. Larsen feels it appears to be a good product and there is no reason to say a STOP sign is a traffic control device.

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99-4 STOP SIGNS, ALL PLASTIC POLYCARBONATE (continued.)

MOTION: By Dick Folkers, second by Bruce Carter, to recommend that this product is an official traffic control device and that it meets the guidelines for a STOP sign.

Motion failed 3-4.

Jack Kletzman suggested that the motion be changed to acknowledge the product is an approved traffic control device, subject to existing specifications. Gerry Meis said he would prefer the Committee not get into new products. Bruce Carter said he as sought to buy plastic STOP signs in the past. The only problem was the thickness of the sign when storing 30-40 signs. Mark Cortina said the sign could be stored outside.

MOTION: By Dick Folkers, second by Jim Larsen, to recommend that this product is an official traffic control device, subject to existing specifications. Motion passes 5-2.

ACTION: Item completed.

99-5 SPEED RADAR ENFORCED COUNTYWIDE

Jack Kletzman said there were two issues before the Committee. The first is that Conrad Lapinski suggested that RADAR ENFORCED plates be limited to the beginning and ending of a speed zones. He felt there were too many plates being installed and asked that the existing policy be reviewed. The second issue was whether a SPEED RADAR ENFORCE COUNTYWIDE sign would be of any value and whether it could reduce the amount of signs.

Gerry Meis said Caltrans and the CHP have been discussing this sign for about a year. It began when a local CHP commander asked Caltrans to erect a SPEED RADAR ENFORCE COUNTYWIDE sign on the county line. Caltrans interest would be that it would reduce the number of signs. Recent discussions indicate that CHP still wants the RADAR ENFORCED signs below every speed limit sign where radar enforcement exists. Caltrans sees no advantage to the SPEED RADAR ENFORCE COUNTYWIDE sign at county lines unless there is a reduction in signs.

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99-5 SPEED RADAR ENFORCED COUNTYWIDE (continued.)

Stan Perez said that Counties are more frequently asking the CHP to use radar enforcement on highways in their area. Their experience in defending radar issued citations is that the more notice provided motorists the better. If RADAR ENFORCED signs are sparse, or only at the County line, the chance for conviction is reduced and makes the deployment of radar ineffective. This is the reason CHP advocates no change in the current policy for posting of RADAR ENFORCED signs.

Wayne Tanda observed that the practice seems to be, to put the RADAR ENFORCED (R48-1) under all freeway speed limit signs, and the policy doesn't specifically require that. Gerry Meis said that generally Caltrans puts up the plates at CHP request. Stan Perez said CHP doesn't have any problem with the existing policy language. CHP would be against substituting the county line sign for RADAR ENFORCED plates.

Jim Larsen said there was a time when his County had about four roads on which CHP used radar. Most major roads were marked RADAR ENFORCED. Now most of the County is radar enforced. Larsen feels there is no need to notify the motorist on local roads. This would require radar enforced by CHP, City Police, or County Sheriff signs. He recognized that some County speed zones were not established by an engineering and traffic survey. CHP will not enforce these zones, because they are speed traps. There is no County wide radar enforcement. Larsen feels that radar enforcement on local roads is so common place a County wide sign is not needed.

Bruce Carter concurred. An unidentified member of the audience said that Sonoma County was using the sign. Dick Folkers suggested that the SPEED RADAR ENFORCE COUNTYWIDE sign policy be changed to a "may" condition.

Stan Perez established that the sign would be supplemental to, and not replace existing RADAR ENFORCED signs. He feels that the sign creates confusion with respect to whether existing policy remains in place on freeways. County interpretation may result in a replacement sign. Wayne Tanda said that most local jurisdictions, including the City of San Jose, don't use RADAR ENFORCED plates. Bruce Carter cautioned against using the SPEED RADAR ENFORCE COUNTYWIDE sign because most Counties have areas they cannot enforce by radar.

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99-5 SPEED RADAR ENFORCED COUNTYWIDE (continued.)

Jack Kletzman asked what the purpose of the SPEED RADAR ENFORCE COUNTYWIDE sign would be, if it isn't to be used to eliminate RADAR ENFORCED plates. This was the original intent.

Andrew Poster concurred with making the policy conditional and suggested that the policies for both signs be made consistent by adding the phrase "...where law enforcement has the authority to use radar. ..." to R48-2. In that way the County can enforce with radar. Wayne Tanda thought the sign meant radar will be used wherever it is appropriate in the County. There are some County roads where it is legal to use radar and others where it is probably not.

MOTION: By Dick Folkers, second by Jim Larsen, to recommend that the policy be modified to "The SPEED RADAR ENFORCE COUNTYWIDE sign (R48-2) may be place on all roads....." Motion failed 3-3 with one abstention.

ACTION: Item completed.

99-6 SAFETY CORRIDOR SIGNS

Stan Perez said the CHP, local jurisdictions, and other organizations have adopted a Safety Corridor Approach to reduce accidents. A team of interested parties is established to identify a roadway or series of roadways, within a jurisdiction, that has a higher than normal accident, violation, fatality, or injury rate. The team develops a strategic plan and institutes a public awareness campaign. The proposed sign would be a part of the public awareness campaign. Perez said the CHP was involved in eleven corridors and there is a proposal for fifteen more. The proposed sign identifies roads selected as a safety corridor with a logo to remind motorists to drive cautiously in this troubled area. The taskforce approach has proven extremely effective in reducing accidents.

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99-6 SAFETY CORRIDOR SIGNS (continued.)

Wayne Tanda established that the SAFETY CORRIDOR DRIVE SAFELY sign was up for recommended approval and the SCENIC AND SAFE sign was a typical example of a logo. Dick Folkers was concerned about the variations of logos to be expected. Stan Perez responded that each Taskforce would adopt their own logo. An unidentified member of the audience questioned the use of a regulatory sign for this purpose. Gerry Meis agreed the sign was regulatory, but felt it was appropriate. He also noted that any logo would be detailed in his department, and would therefore be subject to review.

Stan Perez said the signs would be on both State and local jurisdiction right of way. Those corridors funded by CHP grants include, not only CHP jurisdictional highways, but also local roads. This does not preclude a local jurisdiction from seeking their own grant. Tanda established that while the proposed signs have State route identification there may be unidentified local feeder facilities. Perez told the Committee that grant funding spans a number of years. As a part of the grant process, the proposing Department commits to continuing the effort for as long as possible. Although FHWA supplemental funds dry up, the CHP still concentrates its effort on the identified corridors, and the signs remain.

Gerry Meis said the signs are provided, installed, and paid for by the State. Caltrans normally requests the Safety Corridor Taskforces to keep the signs for no longer than three years. An agreement is negotiated for each site. Stan Perez said the corridors are usually short and the signs would be installed, each way, at the beginning and end of the corridor. Perez noted that everything in the educational campaign refers back to the corridor logo.

Patrick Hsu expressed concern that the act of establishing a safety corridor, might imply a known unsafe condition, and thereby encourage litigation. Stan Perez responded that the CHP is not declaring a roadway unsafe, but where motorists might be behaving in an unsafe manner. Each area is unique, generally focusing on a rising trend, and there are no standards. He also noted that only the Legislature has the authority to define a safety corridor as a double fine zone. The TURN ON HEADLIGHTS program has a different purpose.

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99-6 SAFETY CORRIDOR SIGNS (continued.)

MOTION: By Stan Perez, second by Gerry Meis, to recommend adoption of the Safety Corridor sign. Motion failed 5-0 with two abstention. *[A plurality of six votes is needed to pass this motion, since this is a recommendation on a new traffic control device.]*

ACTION: Item completed.

99-7 ADOPT A HIGHWAY SIGNS

Gerry Meis introduced a package of revised ADOPT A HIGHWAY signs and asked for the Committee's endorsement. Wayne Tanda explained that the S32 and S32A are the parent signs and the remaining signs are supplemental. Tanda established that the supplemental sign would be selected in accordance with the nature of work the volunteer group was willing to perform. *[Normally when a highway is adopted, it is adopted for a single work task.]*

Gerry Meis explained that these volunteer groups save Caltrans a lot of money. The purpose of the heart shaped S32A is to make the sign unique and get the motorists attention. The logo in the parent sign is the logo of the volunteer organization doing the work, which is current practice. These sign revisions are an attempt to make the signs a little different than standard signing. Bruce Carter noted that the new signs use pictures rather than words to describe the work. Carter requested that, if new signs are adopted, existing signs be allowed to remain in use. This would save local agencies a lot of money. Perry Lowden said that the proposed signs are just a revision of existing signs. He noted that the verbiage on the typical layout sheet calls for S32 -1, 2, 3, or 4 which implies only one plate per sign.

Dick Folkers felt the heart shaped symbol added a lot to fabrication costs, it is an easy target for theft, and its not that relevant at highway speeds. Bruce Carter thought it would be a target in Shasta County. Wayne Tanda noted that while most of the symbol signs were self explanatory, the wildflower planting sign required an explanation to be understood. Bruce Carter thought the vegetation control symbol sign (S32-5) could also be applicable for wildflower planting.

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99-7 ADOPT A HIGHWAY SIGNS (continued.)

Gerry Meis thought that Caltrans allowed organizations to adopt a highway one or two years at a time. Bruce Carter said Shasta County used to do that and found it was too much paperwork. The County now allows adoption until such time as the organization no longer wants the responsibility.

MOTION: By Dick Folkers, second by Jim Larsen, to recommend adoption of the basic ADOPT A HIGHWAY (S32) sign. Motion passed 7-0.

MOTION: By Dick Folkers, second by Bruce Carter, to not recommend adoption of the heart shaped insert ADOPT A HIGHWAY (S32A) sign. Motion failed 5-2.

MOTION: By Gerry Meis, second by Stan Perez, to recommend adoption of the heart shaped insert ADOPT A HIGHWAY (S32A) sign. Motion failed 2-5. *[Same motion as above, but restated for clarification.]*

MOTION: By Jim Larsen, second by Stan Perez, to recommend adoption of the litter removal symbol (S32-1) sign. Motion passed 7-0.

The consensus of the Committee was that there was a lack of understanding of the meaning of the wild flower planting symbol and a question of why a one time task deserves a sign. No motion was made for S32-2.

MOTION: By Bruce Carter, second by Dick Folkers, to recommend adoption of the graffiti removal symbol (S32-3) sign. Motion passed 7-0.

MOTION: By Bruce Carter, second by Dwight Ku, to recommend adoption of the tree planting symbol (S32-4) sign. Motion passed 7-0.

MOTION: By Dick Folkers, second by Jim Larsen, to recommend adoption of the vegetation control symbol (S32-5) sign. Motion passed 7-0.

ACTION: Item completed.

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EXPERIMENTAL ITEMS

Item 96-3 ILLUMINATED LEFT TURN YIELD SIGN

Wayne Tanda said that the City of San Jose had completed all of the data gathering and will be bringing this item back for Committee approval at the next meeting. They are using San Jose State University as a partner.

Item 97-9 ELECTRIC MESSAGE SIGNS AND ARROW BOARDS

Jack Kletzman said that funding is not yet available. Caltrans may not be able to start work on the project until after July 1, 1999 unless a source of money is found.

PUBLIC COMMENTS

Andy Costa asked for a clarification of the statement that AB 2222 may eliminate the need for engineering and traffic surveys with respect to radar. Costa supported the elimination of the unused push button detail suggested at the last meeting. [Standard Plans Sheet ES-5C, Type A] He suggested adding a minimum dimension on the button detail. This dimension is in the Standard Specifications but not the Standard Plans. He said that Daly City put up stickers explaining pedestrian symbols to pedestrians and he knows of other cities that use metal plates for the same purpose.

Gerry Meis explained that in order for the CHP to enforce speed limits by radar, an engineering and traffic survey had to be conducted every five years. AB2222 changed that to be re-examined every seven years. If a registered engineer decides there is no change then an engineering and traffic survey has to be conducted every ten years. He believes the clock starts at the last survey. There is some odd language concerning radar guns and the City of Los Angeles but it does not effect Caltrans. Jack Kletzman recalled that the Committee had considered pedestrian symbols stickers and determined they were not an official traffic control device. There is a standard by the FHWA but it is considered informational.

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INFORMATION ITEMS

Item 93-18 CROSSWALKS, SEQUENTIAL LIGHTING

Gerry Meis gave the Committee a list of local jurisdictions approved by Caltrans to install crosswalk pavement lights. Meis said that Caltrans had developed a set of interim guidelines for experimentation. A vendor had requested that the guidelines be modified to allow crosswalk pavement lights to shine in both the lane and the crosswalk. Previous guidelines required that lights only shine away from crosswalks.

Bill Streater cited 1959 IES Lighting Handbook, Methods of Discernment, Discernment by Silhouette, Discernment by Surface Detail; more recent studies by the Institute of Transportation Studies, University of California at Berkeley, Fundamentals of Traffic Engineering, 13th edition, Fundamental Factors of Discernment, Methods of Discernment, where silhouette and reverse silhouette continue to be listed as the primary method of discernment. He said the MUTCD supports locating pavement lights to silhouette the pedestrian. He proposes that Guideline Item 4 be revised to “They should be located on the outside and on each side of the crosswalk facing away from, and facing inward, toward the crosswalk, in order to alert oncoming traffic and silhouette pedestrians.” The following should be added after the second sentence. “Such bi-direction lighting may be accomplished by the use of separate fixtures or a bi-directional fixture. He then asked the Committee to consider the change.

Wayne Tanda said the Committee had already acted on the item and that the experiment that is currently going on is entirely under the auspices of Caltrans. Gerry Meis said he was under the impression that the Committee felt strongly that crosswalk pavement lights should not shine into the crosswalk. Although Meis knows he can change the guidelines, he is reluctant to do so until the Committee had a chance to discuss it.

Bruce Carter recalled that the original intent was to attract the attention of the motorist, not to light up the pedestrian or the crosswalk. Carter feels there is no harm in testing, if there is any advantage to lighting up the pedestrian or the crosswalk. Dick Folkers expressed concern about silhouetting the pedestrian because his main use is during daylight.

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INFORMATION ITEMS (continued.)

Item 93-18 CROSSWALKS, SEQUENTIAL LIGHTING

Wayne Tanda preferred that the lights not be visible to the pedestrian and give a false sense of security. The installation by the City of San Jose will be operated by motion detection rather than by push button. He wants pedestrians, as they cross the street, to do so with the thought that they need to look for the gap.

OFF AGENDA ITEMS

Bruce Carter said he noticed a white flash when the City of Redding's LED signals turned red. Wayne Tanda said that also happened in San Jose.

Gerry Meis told the Committee that Caltrans has changed it's policy on guide signs. For many years Caltrans has used opaque coated background with button copy lettering. Newly installed green and white guide signs will use Type III or IV retro-reflective sheeting. Blue or brown colored signs will use Type II retro-reflective sheeting.

ADJOURNMENT

MOTION: By Bruce Carter, second by Dick Folkers for adjournment.
Motion carried 7-0. The meeting was adjourned at 1:30 p.m.

CALTRANS ACTIONS

Item 90-7 BICYCLE SIGNAL HEADS

Waiting for enabling legislation. Caltrans is in the process of drafting warrants and standards.

Item 92-18 GOLF CART SYMBOL SIGN

Caltrans will make the sign specifications upon receiving the FHWA approved symbol sign from the City of Palm Desert.

Item 93-18 CROSSWALKS, SEQUENTIAL LIGHTING

Caltrans is continuing with local agency experimentation.

Item 94-10 PEDESTRIAN SIGNAL HEAD

Experiment in progress.

Item 96-3 ILLUMINATED LEFT TURN YIELD SIGN

Experiment in progress.

Item 96-7 SPEED LIMIT SIGNING

Caltrans is reviewing the Committee's recommendation.

Item 98-4 YELLOW PHASE TIME

Caltrans is revising the traffic manual.

Item 99-2 SHARE THE ROAD SIGN

Caltrans has approved this sign.

Item 99-4 STOP SIGNS, ALL PLASTIC POLYCARBONATE

No action required.

Item 99-5 SPEED RADAR ENFORCED COUNTYWIDE

Caltrans is not approving this sign.

Item 99-6 SAFETY CORRIDOR SIGNS

Caltrans has approved this sign.

Item 99-7 ADOPT A HIGHWAY SIGNS

Caltrans has approved all signs.